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# THE LAW OF THE THREE RENTS.

THE law of rent is perhaps only a law in the sense that it provides an exceedingly convenient rule of measurement for fluctuations in the value of land. It is strange that writers like General Walker and Mr. Gunton, who have rigidly applied this law to profits, should have failed to see that it is equally applicable to the other participants of the net product. In the case of General Walker, the failure is perhaps explained partly by the anomalous position which he assumes for labor as a residual claimant who comes in for all that is left of the product after the relatively fixed charges for rent, profit, and interest have been defrayed, and partly by his apparent belief that the validity of the law of rent requires that the margin of cultivation should be represented by a "zero" rent. Having found as regards the earnings of employers "a theoretical no-profits stage of production," he felt himself able to apply the law of rent. He did not find a no-interest and a no-wage stage of production, and therefore concluded that the "law of rent" would not apply. If we look more closely at the subject, we shall see that the "law of rent" will, in its essential features, apply to interest and wages as clearly as it applies to profits. Such an application will, among other results, upset entirely the position of wages as a residual claimant.

It is sometimes easier to attack a large subject from what may seem at first sight a side issue than to tilt straight at the giant. As a deduction from the law of rent, it has commonly been held that rent is not a determinant of agricultural prices. The statement is strictly true; but let us look at the proofs generally offered. They are two.

First. If a landlord were foolish enough to remit the whole of a rent he might have taken, the price of agricultural produce to the consumer would not fall: the tenant farmer would take in higher profits the whole sum saved; or, if he were guilty of the same weakness as his landlord, and lowered his prices as he might, the miller and the butcher would take the extra profit which the farmer declined. Rent cannot be a determinant of price; for annihilate the rent, and the price remains the same. This contention, if we do not follow it in its further effects outside of agriculture, is unassailable. But what applies to rent applies equally to the profit of the farmer or any of the middlemen between producer and consumer. If the farmer, seized with some mania of equality, decided that he ought to take no more of his farm produce than one of his laborers got in wages, and lowered his prices, we have just seen that the gain would be taken by the next middleman, and the price to consumers would stand firm. Since profit at any stage between producer and retail salesman could be remitted without affecting price, we must conclude that profit, like rent, is not a determinant of price. The same obviously will hold of the wages of the farm laborer. If he could be got to work for nothing in a particular case, it would not affect the price of agricultural produce. By the rigid application of the inductive Law of Difference, we are led to the conclusion that neither rent nor profit nor wages are determinants of price. This dilemma we will for a moment leave, and turn to the second proof, which, to do it justice, generally figures as the first.

Rent cannot be a determinant of or even an element in agricultural prices, because produce raised at the margin of cultivation, where no rent is paid, fetches the same price as other produce raised on rented land. This is quite correct. But can we apply the same reasoning to capital and labor? If for the term "margin of cultivation" we substitute the more convenient term "margin of employment," we shall see that the very same argument will apply to capital and labor that applies to land. There is a single point of difference, an important one, but not touching the application of the theory of the "law of rent." The margin of cultivation or employment in the case of land marks a "zero" return or payment to the land-owner: the margin of employment in the case of capital and labor stands at a fixed point above zero. What no-rent is to the land-owner and (according to General Walker) to the employer, the minimum interest and the minimum wages are to capital and labor. Ah! but that just makes all the difference, it may occur to some. I think not. I think it can be clearly shown that the minimum point in interest and in wages plays precisely the same economic part as the no-rent point does in land and the no-profit point in work of superintendence. The reason for the difference in margin of employment is obvious when we co-ordinate the three.

Land at the margin of employment pays no rent, because the owner will allow his land to be used for a nominal payment rather than let it lie idle. The employment of land involves no effort on the part of the owner. If the Earth were, as was held in some mythologies, a goddess, and could extract payment for her services, the worst land under cultivation would not produce its fruit without the payment of more than a nominal rent to Mother Earth. If the owner of land had to feed or otherwise tend it, to keep it alive and in working order, the land on the margin of cultivation would always yield an actual rent. Wherever the owner does by such service sustain the fertility of his soil, he takes care to get a "rent." A no-rent margin of cultivation is only possible where no exertion of the owner is required.

Capital at the margin of employment pays a minimum interest (say 3 per cent.), because otherwise the owner will not keep it in economic existence and allow its use. The continued existence of the least advantageously employed capital requires some exertion or sacrifice on the part of its owner. Hence the payment for use of such capital must be always above zero under present industrial conditions.

Labor at the margin of employment is paid a minimum subsistence wage, because otherwise the owner will prefer to beg, borrow, steal, or starve. The payment for use of labor must, therefore, always stand above zero.

In short, land continuously exists as a requisite of production; and, in order to place capital and labor on terms by which their action can be co-ordinated with that of land, we must first provide for their continuous existence. That which has to be paid for keeping in economic existence that capital and labor which lie at the margin of employment should be separated from any further gain which will accrue to their respective owners. Suppose that for convenience we assume that interest at the margin of employment of capital is 3 per cent., and wages at the margin of employment of labor is 15*s*. We will reserve the names "interest" and "wages" for these minimum payments, using the terms "rent of capital," "rent of ability," for any extra payments which are received by capital and labor. Our three requisites now fall into line as follows: —

Land at the margin of employment pays zero rent.
Capital at the margin of employment pays 3 per cent. interest.
Labor at the margin of employment pays 15*s*. wages.

Land below the margin of employment is waste or prairie, which can only come into employment by a raising of the zero rent at the margin into a positive quantity, thus lowering the margin of employment. Capital below the margin of employment includes both unemployed capital and potential capital; *i.e.*, capital which would be created if the inducement to save were a little greater. This potential capital, or capital below the margin of employment, must be regarded as only bounded by the total produce in excess of what is necessary to support life. Any raising of the rate (3 per cent.) at the margin of employment will call some of this reserve into actual use, lowering the margin of employment. So far as a limited field of industry is concerned, all foreign capital will be included as capital below the margin, which a sufficient inducement would bring into employment. Labor below the margin of employment includes all unemployed labor and all foreign labor which a sufficient remuneration will render available.

Different pieces of land may be graded in quality and rental by the amount of their respective superiority in fertility or convenience over the land at the margin of employment, the rental of each grade rising and falling with each rise and fall in the margin of employment. So different pieces of capital may be graded in quality and rental by the superiority which (*a*) size and consequent economy of management, (*b*) monopolic character of employment, or other advantages natural or conventional give them over the capital at the margin of employment;

*i.e.*, the capital which is normally employed at the least advantage. The rental of each superior piece of capital will rise and fall with each rise and fall in the margin of employment; for it must be considered that there exists an enormous quantity of potential capital, which cannot, with the present position of the 3 per cent. margin of employment, find a profitable use so as to yield 3 per cent., and which, therefore, does not actually figure in the market. It is useful to regard this unemployed capital as inferior in quality and unable to find employment because of its inferiority. So labor may be graded in quality and rental by the superiority which (*a*) inherent properties, strength, skill, and other abilities, or (*b*) opportunities partaking of a monopolic character, give it over the labor at the margin of employment; *i.e.*, the 15*s*. labor normally employed at the least advantage to the laborer. The rental of each superior piece of labor will rise and fall according as a rise or fall in the margin of employment lets in or drives out inferior or unemployed labor.

Any increase in demand for the use of land, raising the value of all land in present supply, gives a positive rent to the no-rent land, and *thus* lowers the margin of employment, calling into economic use land which formerly lay below the margin. Any increase in demand for the use of capital raises the rent of all capital; and, in the case of capital at the margin of employment which formerly paid only 3 per cent., rent emerges, the margin is lowered, and potential or foreign capital comes into employment. Any increase in demand for the use of labor raises the rent of ability, and in the case of labor at the margin, which formerly earned 15*s*., a rent emerges; *i.e.*, the 15*s*. becomes (say) 18*s*. The margin of employment is thus lowered, and unemployed or foreign labor is attracted into employment.

Thus, applying the formula of the law of rent to all three requisites of production, we get the following result: —

The rent of a piece of $\left\{\begin{matrix}\text{land}\\ \text{capital}\\ \text{labor}\end{matrix}\right\}$ is the excess of its produce over that of the $\left\{\begin{matrix}\text{land}\\ \text{capital}\\ \text{labor}\end{matrix}\right\}$ which is employed to the least advantage and which pays no rent.

Or, taking General Walker's definition of rent,—"It represents the surplus of the produce over the cost of cultivation on the poorest lands actually contributing to the supply of the market at the time,"*—and substituting the term "employment" for "cultivation," we can apply it to the rent of capital and labor with the same force with which it is applied to land.

That this is no wire-drawn analogy, obtained by convenient alteration in the use of economic terms, will be shown conclusively if we apply the test of other economic laws closely related to the law of rent.

What gives real value to the law of rent as a rule of economic measurement in the case of land is the law of diminishing returns. It is because, after a certain point is reached, each £100 of capital or labor applied to a given piece of land produces a proportionately smaller increase, that it pays to lower the margin of cultivation and employ inferior land rather than attempt to get intenser work out of land already in use. It is sometimes concluded that, because the operation of this law is closely related to a rise in the cost of production of an increased supply of agricultural produce, the general fall in the cost of production of an increased supply of manufactured goods proves that the law is not operative there. As land is the most prominent requisite of production in agriculture, and labor and capital in manufacture, a loose idea has got abroad that the law of diminishing returns applies to land, and not to capital or labor. In point of fact, the law applies with equal force to capital and labor as to land. As each extra dose of capital or labor applied to a given piece of

* *Political Economy*, p. 407.

land fails after a certain point to produce a corresponding increase of yield, so does each extra dose of labor applied to a given piece of capital bring a diminishing return. Take the plant and stock which represent the capital of a shop: the net profits from employing two assistants may be greater than from employing only one; but the addition of a third may add nothing to the net return, while a fourth would not be worth his wages. Here the law of diminishing returns comes into operation when more than two laborers are applied to a given piece of capital. The fact that the shop-owner may perhaps find it pay to enlarge his shop and his stock and then to take in more assistants confirms the application of the law of diminishing returns; for it is the action of this law which lowers the margin of employment of capital, and calls into economic existence and use forms of capital which formerly did not exist because they did not pay. The same applies to the plant, stock, and cash which form the capital of a factory. It will not pay the owner of this piece of capital to apply to it more than a certain number of hands. It may pay him to increase his business indefinitely; but, to do so, he must increase his capital, for there will always be a limit to the number of hands he can with advantage apply to each £1,000 worth of capital, and, if he were to pass that limit, each additional hand would entail on him a growing amount of loss. And so it is also with labor. It will pay to lower the margin of employment and take an inferior quality of labor rather than attempt to work beyond a given point the better labor. The work of a man in connection with a machine may be looked upon either as an application of labor to capital or as an application of capital to labor. Just as from the former point of view we find there is a limit to the quantity of labor which may be advantageously applied to a piece of machinery, each excessive application involving an increasing loss, so from the latter point of view there is a limit to the quantity of capital usefully applied to a given piece of labor. In a stress of work it may pay a mill-owner to get his hands to work overtime. But there is obviously a limit here. If ten hours is the normal working day, it might pay to work the same hands for two hours' overtime. It might be an open question whether it were better to hire outside and presumably inferior labor if four extra hours were necessary. If it was required to extend the working day by six hours, the margin of employment must certainly be lowered in preference to so great an intensification of the strain upon the labor-power of present employees. A skilled hand may be able to tend one thousand cotton spindles, but it does not follow that it will pay the employer to tax the skill of such experts by putting them to eleven or twelve hundred spindles. If he should attempt thus to increase the quantity of capital applied to a given piece of labor, he will certainly find that each fresh application produces a diminishing return. Each laborer, both in length of hours and in intensity, has his limit; and, when this is reached, it will pay to lower the margin of employment so as to include inferior unemployed labor. The law of diminishing returns thus applies with equal precision to capital and labor as to land.

We may sum up our argument thus far as follows: An intenser use of any given piece of land, capital, or labor, beyond a certain point, causes a diminishing return. The margin of employment is thus lowered in each case. And an inferior (or more costly) quality of land, capital, or labor, is called into use, the rent of each rent-paying portion rising with each fall in the margin of employment.

This co-ordination of the three requisites of production in relation to the law of rent throws useful light upon (I.) the constituents of price, (II.) the apportionment of the product between the owners of the requisites of production. The extent of these subjects prevents anything like a full discussion, and I shall therefore confine myself to the general effect of an admission of the co-ordination of the requisites of production sketched above.

I. It has been recognized that rent of land is not an element in the price of agricultural produce. So General Walker has proved that "profits do not form a part of the price of manufactured products"; for, as he says, "the profits are drawn from a body of wealth which is created by the exceptional abilities (or opportunities) of those employers who receive profits, measured from the level of those employers who receive no profits,— just as all rents are drawn from a body of wealth which is created by the exceptional fertility (or facilities in the transportation of produce) of the rent lands measured from the level of the no-rent lands." * If we now extend this argument, as we are justified in doing, from the labor of employers to all labor and from land to capital, it would seem to lead to the conclusion that the rent of capital — *i.e.*, all interest beyond 3 per cent. — and the rent of labor — *i.e.*, all wages beyond 15*s.* — were not represented in the prices of commodities.

But the facts of commerce give the direct lie to any such conclusion. It is obvious that a higher interest than 3 per cent. figures in the prices of banking accommodation or railway travelling, and that higher wages than 15*s.* are represented in the price of all commodities containing skilled and highly paid labor. Does this indicate a breakdown in the extended application of the law of rent? No: it only indicates that the same qualification to the statement that rent plays no part in prices must be applied in the case of capital and labor as is required in the case of land. It is only of unqualified or common agricultural land, in a community which can obtain access to unused land, that it is true that rent forms no part of

* *Political Economy*, p. 240; *Quarterly Journal of Economics*, i. 276, *et seq.*

price. Wherever the peculiar properties or requirements of land as a requisite of production assign an absolute limit to the supply, so that a fall in the margin of cultivation cannot adequately operate, this absoluteness of monopoly gives a rental to the worst land in use for a particular object, and enables that rent to figure in prices. Thus, in the price of commodities which can only be advantageously produced inside large cities, ground rents figure as a very appreciable element in price. So, too, rent will figure in the price of hops; for hop-lands are so limited in quantity that the worst hop-land in use pays a rent.

So, in other matters, land at the margin of cultivation for certain specific objects yields a positive rent which figures in price. The same will hold of business profits. If it be correct to assume, though I greatly doubt the accuracy of the assumption, that in some kinds of business there is a no-profit stage of production and that here profit does not figure in price, there are certainly other businesses which no employer will consent to carry on without a definite rate of remuneration as earnings of management; and this must certainly form an element in the price of commodities sold. In other words, if there are employments where the margin of employment, so far as labor of management is concerned, is represented by zero earnings (no-rent), there are others where the margin derives a positive rent.

Now, these limitations to the statement that rent does not form an element in price amount to the admission, that the rule only applies where the margin of employment stands at no-rent, and that this is only the case in unqualified agricultural land. Wherever the worst land in cultivation for a special purpose draws a rent, that rent figures in prices. The same limitation applies to the same extent in the case of capital and wages-labor. If it is allowable to say that land at the margin of cultivation pays no rent, though the rule only applies to land used for certain common purposes, so it is allowable to say that capital and labor at the margin of employment pay no rent (*i.e.*, no return beyond the 3 per cent. and 15*s*. minimum interest and wages), though that statement is only true of the lowest forms of employment of capital and labor. It is obvious that in certain special businesses, *e.g.*, banking, capital at the margin of employment does in fact pay more than 3 per cent., by reason of the operation of monopolic forces on which we need not dwell.

Just as there are special aptitudes of position or quality of soil which assign an absolute limit to the competition for some special use, so that the worst piece of land applied to that use pays a rent, so there are certain species of investments which all capital is not free to enter, but only capital conditioned by certain facts of size and ownership; and the capital actually invested on the least favorable terms in such investments will take a normal return of more than 3 per cent. The fact that a certain bank unwisely established or unfortunately worked may continue for some time to pay less than 3 per cent. is no proof that the margin of employment in banking is below 3 per cent., any more than the chance cultivation of a piece of land on which an actual loss is sustained proves that a "minus rent" and not a "zero" rent marks the margin of employment in land. Just as land at the margin of employment means land deliberately maintained in employment with full knowledge of its nature and capacities, so capital at the margin of employment in banking must be rightly taken to mean capital invested and maintained with full knowledge of the character of the investment. The power of the monopolic nature of certain forms of investment, to secure a special return for the capital deliberately employed under the least favorable terms in that class of business, resembles very closely the power which their special positions assign to particular pieces of land. It is not sufficient to admit that this monopolic character is represented in a higher average of profits or rent. It secures a special rent for the least favorably conditioned portions qualified to compete for such employment.

It must then be concluded that in all trades or forms of investment where restricted competition enables the margin of steady employment to be represented by a return of more than 3 per cent., this special return is a special element in the price of the commodities which such capital helps to produce. The same reasoning is recognized to apply to the elements of skill, strength, disagreeability, and the like, in labor. These qualities attached to a particular class of labor, and limiting the competition for it, insure that the least competent labor steadily employed in such work shall take a wage above the 15*s.* minimum. These prices of the use of capital and labor at the margin of employment certainly form an element in the prices of the commodities sold in such businesses.

We started from a simple theory of rent, in which rent was measured from a margin of employment which paid no-rent, and which in the case of land stood at zero, in the case of capital at 3 per cent., in the case of labor at 15*s.* But we now see that this margin of employment not only moves up and down so as to admit or exclude inferior qualities of land, capital, and labor, but that the payment at the margin does not always stand at zero, 3 per cent., and 15*s.* The simple statement of the law of rent, though equally applicable to all three requisites, only applies to those industries which use the roughest, commonest, and most unspecialized forms of land, capital, and labor. In proportion as specialization of requirements comes in so as to limit competition, the payment at the margin of employment is no longer zero, 3 per cent., and 15*s.*

It will still be open to us, if we prefer it,—for it is entirely a question of convenience in the use of terms,— to say that land, capital, and labor at the margin of employment in any specific form of business pay no-rent,— that is, we may take the lowest return for use of land, labor, and capital, and call it by some other name than rent. We should thus be able to maintain as a general proposition that rent forms no element in price. But, to do this, we should be compelled to an elaborate grading of industries, according to the prices paid for land, labor, and capital at the margin of employment in each respective industry. If, on the other hand, as seems more reasonable, we should prefer to measure by a single line of fixed money value applied through the whole of industry, we must call by the name "rent" all payments for the use of land and all payments beyond 3 per cent. and 15*s*. for the use of capital and labor. But whichever mode of reckoning we prefer will be equally applicable to all three requisites of production. The difference involved in the two methods of measurement, and the fact that this difference applies to capital and labor with precisely the same force as it applies to land, may perhaps be shown more clearly by the following figures: —

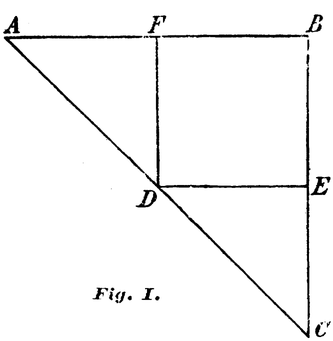

*Fig. I.*

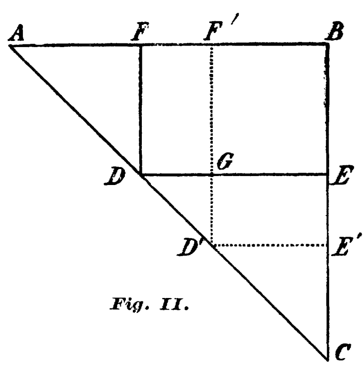

*Fig. II.*

These figures represent the three requisites of production, rising from a minimum quality at the apex C to a maximum quality at the base AB. DE marks the actual margin of employment. In Figure I., which represents an unspecialized employment (*e.g.*, ordinary agriculture), land, capital, and labor at DE pay respectively no-rent, 3 per cent., 15*s*. In Figure II., which represents a specialized employment, land, capital, and labor at DE pay respectively 20*s*. per acre rent, 4 per cent., 25*s*. If we reckon rent from the margin of employment, ADF will form the total rent in the case of each requisite; and it will form no element in the price, which will be measured by the cost of production at DE.

Now turn to the dotted lines in Figure II. If the money values — no-rent, 3 per cent., 15*s*.— are taken as a fixed margin of employment, they will, in the case of a specialized employment, fall below the actual margin, forming an ideal margin, as D′E′. No land, capital, or labor at D′E′ can actually be used in this specialized employment; for we saw that the worst requisites in use stand at the higher grading DE. But, if we reckon from the fixed margin of employment, which is an ideal one, and assert that the requisites of production at the actual margin DE in a specialized employment pay an actual rent (DG), then, in the case of all requisites superior to this, a portion of the rent corresponding to DG will figure as an element in price. The real difference between the two modes of reckoning lies in dealing with the product FG. In the one case FG will be included under rent, in the other case it will not. It ought to be clearly understood what FG actually represents. As DG represents the advantage possessed by the owner of the worst forms of specialized land, capital, and labor in full commercial use over the worst forms of unspecialized requisites of production in use, so, if the figure ADE be taken as the aggregate product of the working community, FG in Figure II. measures the portion which falls to classes owning some specialized requisite of production, some special quality of land, some special opportunity of investment of capital, some specific skill in labor-power, as distinct from the individual gain which falls to the superior competitors within these classes. Using the term "monopoly" in no invidious sense, it might be said that FG represented the element of specific monopoly, while ADF will represent the element of individual monopoly in land, capital, or labor-power. But, though the question whether it is more convenient and just to adopt that mode of calculation which will include FG in rent or not has a special importance of its own, we need not discuss it here; for, whichever mode of applying the law of rent is adopted, that law will be found applicable to capital and labor as to land.

There is, however, one point of difference in the case of the three requisites, which, though it does not affect one whit the theory of the law of rent, furnishes an additional difficulty in its application. Not only is the actual margin of employment different according to the different character of the employment, but, as regards capital and labor, the minimum margin of 3 per cent. and 15*s*. is a slowly changing one. Zero will always mark the payment for the worst land in occupation so long as there exists any worse land not in occupation, for the owner of land will always be ready to take anything in preference to nothing. But 3 per cent. and 15*s*. may not always continue to mark the margin of employment in capital and labor. Any general rise in providential habits or other economic causes may operate indefinitely in lowering the 3 per cent. minimum at the margin of employment of capital, as every rise in the general standard of comfort of the working classes may raise (*pace* Malthus) the minimum of wages. In a wide view of industrial changes, these fluctuations cannot be overlooked, though their consideration does not impair the force of the extended application of the law of rent to capital and labor.

II. But it may be asked, Assuming the law of rent may be so extended, what is the advantage of this analogical treatment? What practical bearing has this theory upon the question of distribution?

Well, in the first place it completely destroys what may be termed the "residuary legatee" treatment of distribution. This treatment is common to the systems of such widely different thinkers as Karl Marx, Henry George, and General Walker. The treatment consists in taking the aggregate product, the object of distribution, showing that two of the three claimants (land, capital, and labor) are entitled to a fixed minimum charge upon the product, and thus placing the third claimant in the position of residual claimant to whatever remains. Following this method, Karl Marx found that capital was able to take all the product minus the wages of subsistence, which remained a fixed quantity and not a fixed proportion as the size of the product grew. Henry George, again, showing how interest and wages were fixed charges, placed the land-owner in the enviable position of residual claimant, maintaining that, "irrespective of the increase of population, the effect of improvements in methods of production and exchange is to increase rent." Finally, General Walker plays the third and only remaining variety of change; for in his system it is rent and interest that are fixed charges, while labor holds the place of vantage and takes the growth of gain in higher wages. In connection with General Walker's statement of the triangular contest, it should be observed that he narrows the issue still further by insisting that labor shall not be treated as one body. The earnings of management, or profit, as we have seen, are also a fixed form of rental, so that it is the labor of the hired workers which takes all that is left after the fixed necessary minimum charges for use of land, capital, and business ability.

It is not difficult to see that the conclusion arrived at by the application of this method depends entirely upon the order in which we inspect the claims of the three economic factors. Whichever order we select, we shall be able to show that the claims of the first and second factors may be plausibly treated as fixed charges, and that the third, therefore, takes all the remainder, and may presumably be able to reap the whole of any industrial improvements not directly attributable to the agency of the other two claimants. But, when the application of the law of rent to all three factors has once been clearly grasped, it will become evident that no one can claim any more than any other the position of "residuary legatee," but that three proportionate charges exhaust the whole product, the proportion which falls to each of the three claimants being determined by the operation of the law of supply and demand upon the margin of employment in the three requisites of production respectively.

In order to illustrate the operation of the law of rent as the determinant in distribution, it will be best to take the case of an increase in the product to be distributed. Our question then will be, What determines the proportion of the increased product which goes to the owners of the three requisites of production? or, in other words, reverting to our general application of the law of rent, What determines the rise of rent in the case of land, capital, and labor respectively? Let us assume, for convenience, that the increased product requires for its production an additional quantity of land, capital, and labor, involving a proportionately equal increase in all three requisites of production,— *e.g.*, a rise of 10 per cent. in the quantity of each requisite industrially employed. How will this increased demand for the use of the requisites of production affect the proportion in which the product shall be distributed?

If the demand for use of more land, capital, and labor, can be met by the employment of a new supply of each, lying just below the margin of employment, but only nominally inferior to the supply in previous use, the prices of use of land, capital, and labor, will not appreciably rise, and the new product will be divided among the three, in strict accordance with the previous proportions. In that case, the fall of the margin of employment and the rise in rental of each rent-paying portion of the land, capital, and labor in previous use, will be very slight,—just sufficient to call into economic existence the required increase of supply. But if, while there is plenty of land and capital available, of barely inferior quality to that on the margin of employment, an equal addition to the supply of labor is not so easily procurable, the growth of demand for labor acting in relation to a fixed supply will raise the price or rent of labor above the margin of employment until that margin is driven down low enough to include the required new supply. That is to say, while in the case of land and capital a merely nominal fall of the margin involving a nominal rise of rent has produced the new supply, in the case of labor a considerable fall of the margin, attended by a considerable rise of rent, has been required to produce a corresponding increase of supply. Thus, while the rent of land and capital remain practically at the same level as before, the rent of labor will have risen greatly, and will absorb almost the whole of the increased product, shifting the balance of proportion in the distribution of the aggregate product among the industrial community.

The advantageous position here accorded to labor may with equal reason be assigned to land or capital. In proportion to the difficulty of supplying each increased quantity of the several requisites of production will be the rise in price of each unit of those requisites already in use. The mechanism by which this operates is very simple. The rise of price will be caused by the deficiency of available supply considered in relation to an increased demand reckoned at former prices: the new supply can only be brought into the same quantitative relation to the new demand by the maintenance of a new level of prices, the new price unit representing in relation to the old the greater difficulty of keeping in economic use the worst unit in the supply of that requisite of production.

Thus we reach the law that the proportion of the aggregate product which is paid as rent of land, of capital, and of labor, varies with the difficulty of keeping in economic use the quantity of each requisite of production required to maintain the rate of current production. As there is always vacant land below the margin of cultivation (*i.e.*, requiring more effort of man to yield a given quantity of use of natural agents), so there is potential capital (*i.e.*, capital which requires more effort to call it into actual existence, but which, given a sufficient motive, will become actual forms of capital); and, lastly, there is a vacant labor of inferior quality (*i.e.*, a larger quantity of which is required to furnish a given amount of effective labor-power). In each case, the potential or unemployed requisite is called into economic use by a sufficient rise in the rent of that which lies above the existing margin of employment.

This theory that changes in the proportionate payments to land, capital, and labor, are dependent upon the comparative ease or difficulty of increasing the supply of each, would seem so obvious a truth that it could not have failed to secure adequate recognition. That it has failed to do so must be attributed to the extreme reluctance which economists have shown to admit the truth, that the only *immediate* cause of a change of price is a previous change in the quantitative relation of supply and demand at current prices. If it were once clearly recognized that a restriction of supply at current prices were the only possible immediate cause of a rise of price, and if this were kept in mind in dealing with the prices of the use of land, capital, and labor, the main difficulty in forming a satisfactory theory of distribution would disappear.

It will perhaps be convenient to sum up the conclusions so far reached in the following three propositions: —

1. If there exists an indefinite quantity of each of the requisites of production just below the margin of employment, of almost equal quality to that upon the margin, an increase in production will neither alter the proportion of distribution among the owners of the three requisites nor appreciably raise the rent of each unit of a requisite above the margin.
2. If there is not a sufficient quantity of any of the requisites of production easily available for new supply, and the difficulty of procuring each piece of additional supply is equal in the case of each requisite, the rent of each rent-paying unit of land, capital, and labor, will rise, but the proportion of distribution of the aggregate product will remain unchanged.
3. If there is a difference in the amount of difficulty of procuring the increased supply of the three requisites, that difference will be accurately measured by the relative rise in rent of the rent-paying portion of each requisite, and by a corresponding alteration in the proportion of the aggregate product which falls to each; *i.e.*, if it is desirable to increase by 20 per cent. the quantity of each requisite of production in order to increase the product and it is twice as difficult to procure the increased quantity of land as of capital and labor, one-half of the increased product will go as rent to land, one-quarter as rent to capital, one-quarter as rent to labor. The change as regards the total product (old and new) may of course be reckoned by determining the proportion which the new product bears to the total product.

In applying the rule of measurement thus far, we have assumed the case where the increase of production acts as a call for an increase in the use of the three requisites which is proportionately equal. But, in fact, it is of course seldom the case that the proportionate part played by the respective requisites of production remains the same when there is an increase of production. It by no means follows that if in the old quantity of production the numbers 3, 2, 5, represent the respective contributions of land, capital, and labor, and the production be doubled, the same proportion will hold among the contributors. We know, in fact, that every increase in the aggregate product will be attended by a change in the proportion of the contribution of the three requisites. Hence the practical application of our rule of measurement is obviously no easy task. For every change in the distribution of the aggregate product will depend on the relative strength of two forces: first, the relative growth in the demand for each requisite signified by the increased product; second, the relative difficulty of supplying that increased demand. The frequent use of the word "relative" here is itself a proof of the complex nature of the problem. Before we can say in what degree an increase of 10 per cent. in the aggregate production of a community will affect the proportionate distribution, we should have first to ascertain two facts: ($x$) the precise amount of land, capital, and labor required to take part in the new production and the proportion each addition bears to the quantity in previous use; and ($y$) the extent of the fall in margin of employment necessary to furnish in the case of each requisite the desired increase. Now, each of these two facts, $x$ and $y$, is itself a resultant of various conflicting forces, and can only be ascertained by an elaborate calculation.

A whole group of considerations affect the proportionate increase of each requisite of production required by each increase in the aggregate production. Among them the following are most prominent: —

1. Improvements in the industrial arts, and applica-

tion of labor-saving machinery, (*a*) enabling the same quantity of capital to suffice in turning out an increased product, (*b*) enabling capital to take the place of labor, so that what might seem to be an equal demand for more capital and more labor, will act as a demand for a large quantity of new capital and a small quantity of new labor.

2. Social and industrial reforms, improving the organization of labor or inducing greater care and economy in the use of material and of machinery, will, by adding to the average effectiveness of both capital and labor, enable an increase in the aggregate product to be achieved by a less than corresponding increase of capital and labor. Even here the movement is not simple, but complex. *E.g.*, in the case of economy effected by co-operation or profit-sharing, so far as the economy consists in greater care of machinery and less waste of material, it might operate as an equal check upon the increased quantity of both capital and labor required to furnish an increased product. So far as it acted merely as a stimulus to greater working activity, it would figure chiefly as economy of labor, so that an increased product might be wrought by the same quantity of labor acting in conjunction with an increased quantity of capital.

3. Every improvement of physique, morale, intelligence, and technical skill among the workers, will enable a demand for more labor-power to be satisfied by a less than corresponding increase in the number of workers.

4. Improvement in agricultural arts may enable a larger product to be obtained without a corresponding fall in the margin of cultivation; *i.e.*, without a correspondingly increased employment of land.

These are some of the determining forces which would require study before we could reach the resultant $x$. Another set of forces and circumstances affect the ease or difficulty of procuring increased supplies of the respective requisites of production. Such are the following: —

1. The effect of growing improvements in communication, and the breaking down of international barriers for trading purposes, in their respective bearing upon (*a*) the increase of the effective land supply for a given community, (*b*) the increased "fluidity" of capital, (*c*) the easier migration of labor.

2. The effect of war, political insecurity, national commercial restrictions, and the like, as affecting (*a*) the available quantity of each requisite of production, (*b*) the relative fluidity of each requisite of production.

3. Effects of the growth of prudential motives, increased sense of security, and fluidity of capital, as affecting the ease with which an increased demand for capital may be supplied.

4. Complicated effects of rising standard of comfort, education, artificial checks on population, and the like, in determining the increased supply of labor at different degrees of availability.

It is not too much to say that each of these considerations opens up a large field for speculation and involves special difficulties of its own. Each of them has an importance in assisting to determine the resultants $x$ and $y$. But, unfortunately, this is not all. Not only should we have to measure the relative pressure with which these two forces act at each several point in the increase of production, in order to reach the change in the proportionate distribution. For, alas! $x$ and $y$ cannot be determined as entirely separate forces. These are not merely two varying forces, but two varying forces which act upon one another with a force which likewise varies. What we mean is this: it is impossible to state accurately how much new land, capital, and labor would be used to furnish an increased product, unless we know already the amount of difficulty there would be in procuring that increased supply; for we cannot without that knowledge determine how far new labor-saving machinery may be introduced instead of an increased quantity of laborers, nor can we determine how far the increased demand for land will operate in intenser or more efficient culture of the land already above the line of occupation, instead of stimulating the enclosure of hitherto unused land. On the other hand, it will be evident that we cannot ascertain exactly the amount of fall in the margin of employment of the three requisites of production, unless we know, not merely what increased product is required, but also to what extent this increased demand will act upon the three requisites of production respectively,—in fact, until we know the resultant $x$. As the two main forces, which for convenience we regarded as distinct, are thus seen to modify one another, the full nature of the complexity of the problem of distribution begins to dawn upon us. In order accurately to ascertain the disturbance in proportionate distribution of the product between land, labor, and capital caused by an increase of production, we have in effect to measure the varying pressure of a number of industrial forces (which pressure also varies in the rate of its variation), each of which affects a number of other forces with different degrees and varying rates of attraction. We have $u$, $v$, $w$, $x$, $y$, $z$, etc., all moving at different rates and all affecting one another to a different degree in proportion to the force of their respective motions.

To those who are in search of simplicity this may not seem a very satisfactory result. But a large part of the disrepute from which the science of economics suffers among "practical" men is due, not, as often alleged, to an inherent distaste for theoretic treatment, but to the hasty fabrication of economic laws which are so delightfully simple that an attempt is made to use them as "rules of thumb" in dealing with the actual movements of commerce. They are then found to be useless in their application, and the practical man is not satisfied with the scientific economist's elaborate explanations of the difficulties involved in the application of economic laws to details of economic fact. Many economic problems, and in particular those which deal with distribution, are extremely complex; and it is safe to say that any easy mode of treating them must be wrong. The different forms of the "residual claimant" theory, by making a false claim to show simply and clearly "how it is done," have blocked progress in economic science. The attempt here to apply the law of rent so as to yield a basis for a sound theory of distribution has certainly brought to light no new easy "rule of thumb," but it has perhaps served to make more clear the character and origin of some of the difficulties which must be met in this branch of the science.

JOHN A. HOBSON.

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## EDITORIAL NOTE.

The importance of the theory discussed in the above article by Mr. Hobson and in that which follows by Professor Clark, and the different methods of treatment followed by them with substantial identity of conclusion, will sufficiently explain to the readers of the *Journal* the large proportion of space given in the present number to a single topic. It is due to both writers, however, that we should state that immediately after sending Mr. Hobson's article to the press we were informed by Professor Clark that he was engaged upon an article on the further application of the familiar doctrine of differential rent, which he placed at our disposal, forwarding at the same time for our information a statement of the theses maintained in it. It thus appeared that the two writers, working upon the subject independently and without knowledge by either as to the other's speculations, had come simultaneously to the important modification of all previous theories of distribution, which are now submitted for the judgment of our readers.